# UNITED STATES PATENT AND TRADEMARK OFFICE

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| 09/844,511 | 04/28/2001 | Thomas Driemeyer | MENT-059 | 9067 |

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| EXAMINER |
|---|
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**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

PTOL-90A (Rev. 04/07)

| | Application No. | Applicant(s) |
|---|---|---|
| **Office Action Summary** | 09/844,511 | DRIEMEYER ET AL. |
| | Examiner | Art Unit | |
| | John M. MacIlwinen | 2442 | |

-- *The MAILING DATE of this communication appears on the cover sheet with the correspondence address* --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

1)☒ Responsive to communication(s) filed on _22 September 2008_.

2a)☒ This action is **FINAL**.          2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

4)☒ Claim(s) _6-15 and 21-32_ is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _6-15, 21-32_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

## Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

## Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☐ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .

5) ☐ Notice of Informal Patent Application

6) ☐ Other: _____ .

## DETAILED ACTION

### *Response to Arguments*

1.      Applicant's arguments filed 9/22/2008 have been fully considered but they are

not persuasive.

2.      Applicant's arguments on pages 8 – 11 begin with Applicant providing a

summary of what they feel to be their claimed invention. Next, on pages 12 - 13,

Applicant provides their own summary of the cited prior art.

3.      On page 14 Applicant addresses claims 6 – 7 and 21 – 22, previously rejected

under 35 USC 103, Suits in view of Smirnov and Rose. Applicant begins by arguing that

in said claims, "image data, rather than scene data, has been transmitted to the client

device." However, Suits shows said image data transferred to the client device (col. 3

lines 35 – 36, col. 4 lines 33 -34). Applicant's argument thus is not persuasive.

4.      Applicant next argues that "In Suits, a server sends model data to a client" and

that "in contrast, in the present invention, no rendering is performed at the client level".

However, Applicant's arguments are not directed to claimed subject matter. In response

to applicant's argument that the references fail to show certain features of applicant's

invention, it is noted that the features upon which applicant relies (i.e., that "no

rendering is performed at the client level") are not recited in the rejected claim(s).

Although the claims are interpreted in light of the specification, limitations from the

specification are not read into the claims.  See *In re Van Geuns*, 988 F.2d 1181, 26

USPQ2d 1057 (Fed. Cir. 1993).

5.      Applicant next addresses Smirnov, arguing that "the user cannot interactive customize the scene". However, Applicant's arguments do not correspond to claimed subject matter, and thus continue to be unpersuasive.

6.      Applicant next provides an additional summary of Rose, and then argues that "Suits, Smirnov and Rose [are] fundamentally different from the approach set forth in amended claims 6 and 21". Applicant's arguments fail to comply with 37 CFR 1.111(b) because they amount to a general allegation that the claims define a patentable invention without specifically pointing out how the language of the claims patentably distinguishes them from the references.

7.      Applicant's arguments continue, addressing French and Horvitz, again arguing that said references do not show "where image data, rather than scene data, has been transmitted to the client device". Applicant's argument, addressed above in relation to the Suits reference, continue to be unpersuasive for the reasons given above.

### Claim Rejections - 35 USC § 101

8.      35 U.S.C. 101 reads as follows:

> Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

9.      Claims 6 – 15, 31 and 32 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter.  Claim 6 recites a server comprising an image rendering module, an interface (described, for example, on page 26, paragraph 3 of Applicant's specification as an API) and user interaction control module. As all of the components of the claimed server appear to be embodied solely by software, said server does not appear to be directed to statutory subject matter.

Claims 31 and 32 similarly recite servers composed of modules, and thus are similarly

directed to software and thus non-statutory.

### Claim Rejections - 35 USC § 112

10.     The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly
> claiming the subject matter which the applicant regards as his invention.

11.     Claim 32 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite

for failing to particularly point out and distinctly claim the subject matter which applicant

regards as the invention. Claim 32 initially is directed to a "computer program product";

however, the preamble concludes with the language "the server comprising", and thus it

is not clear if the claim language is directed to said "computer program product" or said

"server". For the sake of completing a complete examination, the body of claim 32 is

interpreted as elaborating on the "server".

### Claim Rejections - 35 USC § 103

12.     The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set
> forth in section 102 of this title, if the differences between the subject matter sought to be patented and
> the prior art are such that the subject matter as a whole would have been obvious at the time the
> invention was made to a person having ordinary skill in the art to which said subject matter pertains.
> Patentability shall not be negatived by the manner in which the invention was made.

13.     Claim 6-7, 21-22 and 31 - 32 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Suits et al. (US 6,525,731 B1), hereafter Suits, in view of Smirnov et

al. (US 6,570,578 B1), hereafter Smirnov.

14.     Regarding claims 6 and 21, Suits shows a server and a computer program

product, comprising a computer-readable medium, for using in connection with a

network including at least one client and a communication link interconnecting the client

and the server (col. 4 lines 1 – 12, col. 5 lines 47 – 55, Figs. 1B, 12),

an image rendering module configured to render, from three dimensional scene

data representing a scene, a two-dimensional image;

an interface configured to transmit the two-dimensional image over the

communication link to the client (col. 10 lines 46 – 65).

Suits does not explicitly show all of a user interaction control module configured

to control interactions with said at least one client in connection with rendering of the

image from the scene data;

the control interaction including requests from the at least one client, the requests

including scene customization information requesting at least one customization to the

scene,

the user interaction control module requesting at least one customization to the

scene module to render an image of the scene as customized in relation to the

customization information.

Smirnov shows a user interaction control module configured to control

interactions with said at least one client in connection with rendering of the image from

the scene data (col. 11 lines 35 – 40, col. 12 lines 45 – 61);

the control interaction including requests from the at least one client, the requests

including scene customization information requesting at least one customization to the

scene,

the user interaction control module requesting at least one customization to the

scene module to render an image (col. 12 lines 45 – 61).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Suits with that of Smirnov in order to further

automate the rendering process (Smirnov, Abstract).

15.     Regarding claims 7 and 22, Suits in view of Smirnov further show where the at

least one customization to the scene can be represented in images rendered for

selected ones of clients, the user interaction control module being configured to enable

the image rendering module to control ones of the clients for whom images are

rendered depicting the customization (Suits col. 10 line 60 - col. 11 line 35 and col. 12

lines 6 - 7).

16.     Regarding claim 31, Suits in view of Smirnov further show a server for use in

connection with a network including at least one client and a communication link

interconnecting the client and server, the server comprising:

an image rendering module configured to render, from the three-dimensional

scene data representing a scene, a two-dimensional image (Suits, col. 4 lines 1 – 12,

col. 5 lines 47 – 56, Figs. 1B and 12);

an interface configured to transmit the two-dimensional image over the

communication link to the client (Suits, col. 10 lines 46 – 65); and

a user interaction control module configured to control interactions with said at

least one client in connection with rendering of the image from the scene data (Smirnov,

col. 11 lines 35 – 40, col. 12 lines 45 – 61).

17.    Regarding claim 32, Suits in view of Smirnov further show a computer program
product for use in connection with a computer to form a server for use in connection
with a network including at least one client and a communication link interconnecting the
client and server, the server comprising:

an image rendering module configured to render, from the three-dimensional
scene data representing a scene, a two-dimensional image (Suits, col. 4 lines 1 – 12,
col. 5 lines 47 – 56, Figs. 1B and 12);

an interface configured to transmit the two-dimensional image over the
communication link to the client (Suits, col. 10 lines 46 – 65); and

a user interaction control module configured to control interactions with said at
least one client in connection with rendering of the image from the scene data (Smirnov,
col. 11 lines 35 – 40, col. 12 lines 45 – 61).

18.    Claims 8 – 13 and 23 – 28 are rejected under 35 U.S.C. 103(a) as being
unpatentable over Suits in view of Smirnov as applied to claims 6 and 21 above, and
further in view of French et al. (US 6,266,053 B1), hereafter French.

19.    Regarding claims 8 and 23, Suits in view of Smirnov show an operator
generation module configured to generate, when the server is to render said image, an
operator comprising at least one operator, said at least one operator being configured to
enable said image rendering module to perform at least one operation in connection
with rendering of the image (col. 9 line 42 – col. 10 line 14); and

B. an event manager configured to control execution of said at least one operator
in response to the occurrence of at least one event (Smirnov col. 12 lines 45 – 61 and

col. 13 lines 39 – 47).

Suits in view of Smirnov do not show where said operator generation module is

an operator graph generation module.

French shows utilizing and generating scene graphs, including an operator graph

generation module (col. 5 line 62 – col. 6 line 5 and col. 9 line 1).

It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Suits in view of Smirnov with that of French in order

to utilize an advanced technique for better displaying scene information (French,

Abstract).

20.     Regarding claims 9 and 24, Suits in view of Smirnov and French further show

where the operator graph generation module comprises: A. a user manager module

configured to select operators of selected operator types for use in the operator graph

(Smirnov col. 3 lines 7 – 9, col. 9 line 40 – col. 10 line 14 and col. 12 lines 45 – 61), and

B. a connection manager module configured to connect the selected operators

into the operator graph (French col. 7 lines 51 – 55 and col. 9 lines 60 - 67).

21.     Regarding claims 10 and 25, Suits in view of Smirnov and French further show

where scenes for which images are to be rendered are selected in response to requests

therefor (French col. 19 lines 7 – 25) , and in which a request can include scene

customization information requesting at least one customization to the scene (Suits, col.

12 lines 42 - 50 and Smirnov col. 9 lines 44 - 46), the user manager module (Smirnov

col. 12 lines 45 – 61) being configured to select operators for use in the operator graph

(French col. 9 line 1 and col. 9 lines 24 – 67) in response to the image requested by and

scene customization information contained in a request (Suits col. 12 lines 42 – 50).

22.     Regarding claims 11 and 26, Suits in view of Smirnov and French further show

where the image rendering module comprises:

        A. a scene database configured to store scene data representing at least a

portion of the scene for which an image is to be rendered (Smirnov col. 13 lines 50 - 53)

        B. a customization module configured to customize the scene data contained in

the scene database (Smirnov col. 9 lines 40 - 65 and col. 13 lines 50 - 59);

        C. a rendering engine module configured to utilize the scene data in the scene

database in connection with rendering at least a portion of an image (Smirnov col. 13

lines 48 – 53); and

        D. a job manager module configured to control the customization module and the

rendering module in connection with execution of said at least one operator in the

operator graph (Smirnov col. 13 lines 2 – 50 and French col. 9 line 1 and col. 5 line 65 –

col. 6 line 5) .

23.     Regarding claims 12 and 27, Suits in view of Smirnov and French further show

where in response to execution of said at least one operator (Smirnov col. 13 lines 39 –

43)., the job manager module is configured to establish at least one job, the at least one

job being executable by at least one of said customization module or the rendering

engine module (Smirnov col. 13 lines 4 - 50).

24.     Regarding claims 13 and 28, Suits in view of Smirnov and French further show

where in response to execution of said at least one operator, the job manager module is

configured to establish a plurality of jobs in a job dependency graph (French col. 4 lines

10 – 16, col. 5 lines 11 – 30, col. 6 lines 60 - 66, and Fig. 2), each job being executable

by at least one of said customization module or the rendering engine module, and select

ones of the jobs in the graph for execution (French col. 5 lines 26 – 41).

25.     Claims 14, 15, 29 and 30 rejected under 35 U.S.C. 103(a) as being unpatentable

over Suits in view of Smirnov and French as applied to claims 13 and 28 above, and

further in view of Horvitz et al. (US 6,232,974 B1), hereafter Horvitz.

26.     Regarding claims 14 and 29, Suits in view of Smirnov and French show claims

13 and 28.

        Suits in view of Smirnov and French do not show where the job manager module

is configured to select ones of the jobs for execution in relation to respective job cost

values associated with the respective jobs.

        Horvitz shows where the job manager module is configured to select ones of the

jobs for execution in relation to respective job cost values associated with the respective

jobs (Abstract, Fig. 9).

        It would have been obvious to one of ordinary skill in the art at the time of the

invention to modify the disclosure of Suits in view of Smirnov and French with that of

Horvitz in order to improve resource utilization and processing speed.

27.     Regarding claims 15 and 30, Suits in view of Smirnov and French and Horvitz

further show where the job manager module is configured to assign respective job cost

values in relation to an estimate of server resources used during execution of the

associated jobs (Horvitz, Abstract, Fig. 9).

*Conclusion*

28.     Applicant's amendment necessitated the new ground(s) of rejection presented in
this Office action.  Accordingly, **THIS ACTION IS MADE FINAL**.  See MPEP
§ 706.07(a).  Applicant is reminded of the extension of time policy as set forth in 37
CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action.  In the event a first reply is filed within
TWO MONTHS of the mailing date of this final action and the advisory action is not
mailed until after the end of the THREE-MONTH shortened statutory period, then the
shortened statutory period will expire on the date the advisory action is mailed, and any
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
the advisory action.  In no event, however, will the statutory period for reply expire later
than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the
examiner should be directed to John M. MacIlwinen whose telephone number is (571)
272-9686.  The examiner can normally be reached on M-F 7:30AM - 5:00PM EST; off
alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Andrew Caldwell can be reached on (571) 272-3868.  The fax phone
number for the organization where this application or proceeding is assigned is 571-
273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Andrew Caldwell/
Supervisory Patent Examiner, Art Unit 2442

John MacIlwinen

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